

Figure 1. LCMS analysis of recombinant peptide variants

MM-416776

MD-915

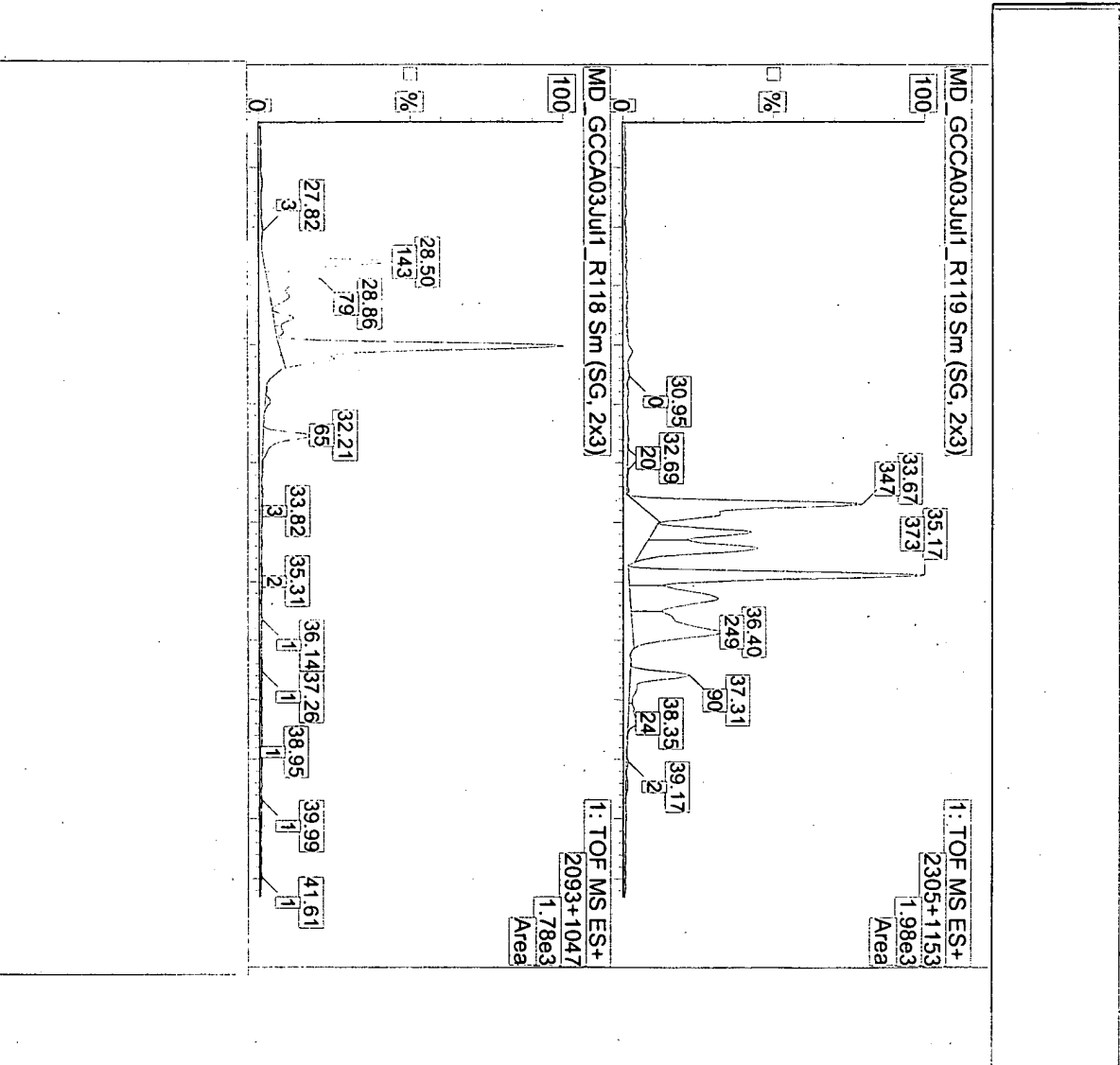
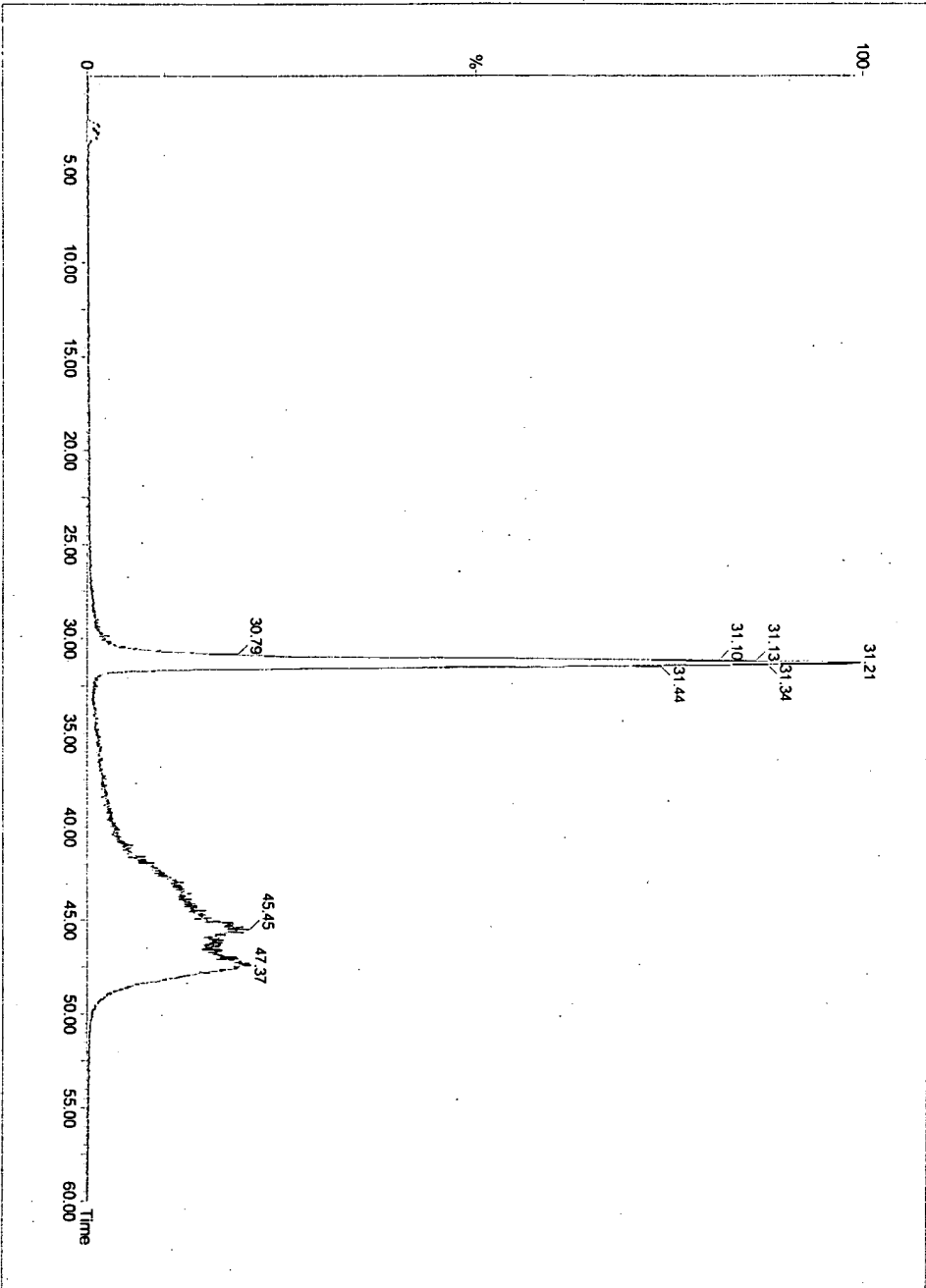
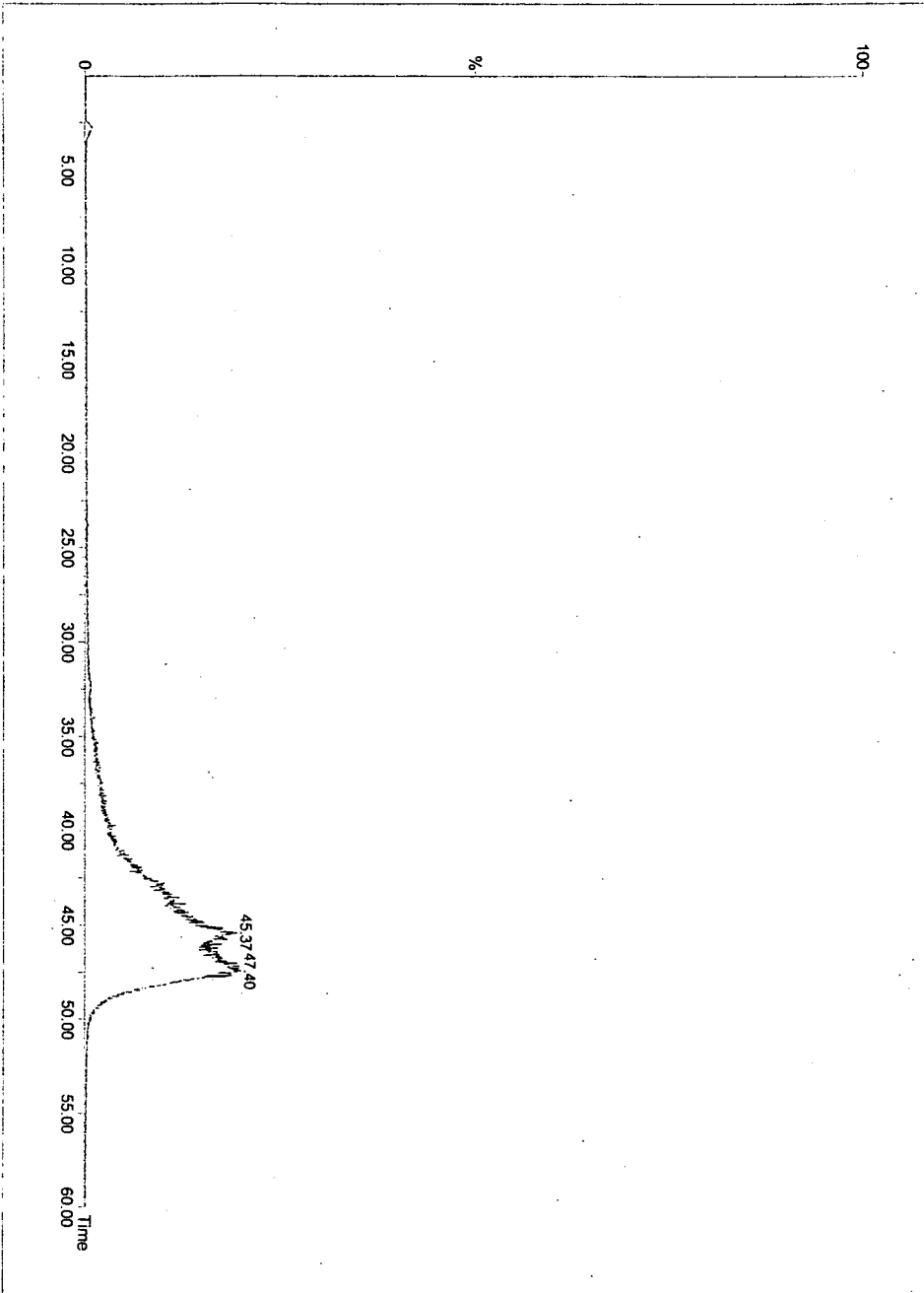


Figure 1b: LCMS analysis of synthetic MD-1100 (Total Ion Chromatograph (TIC))



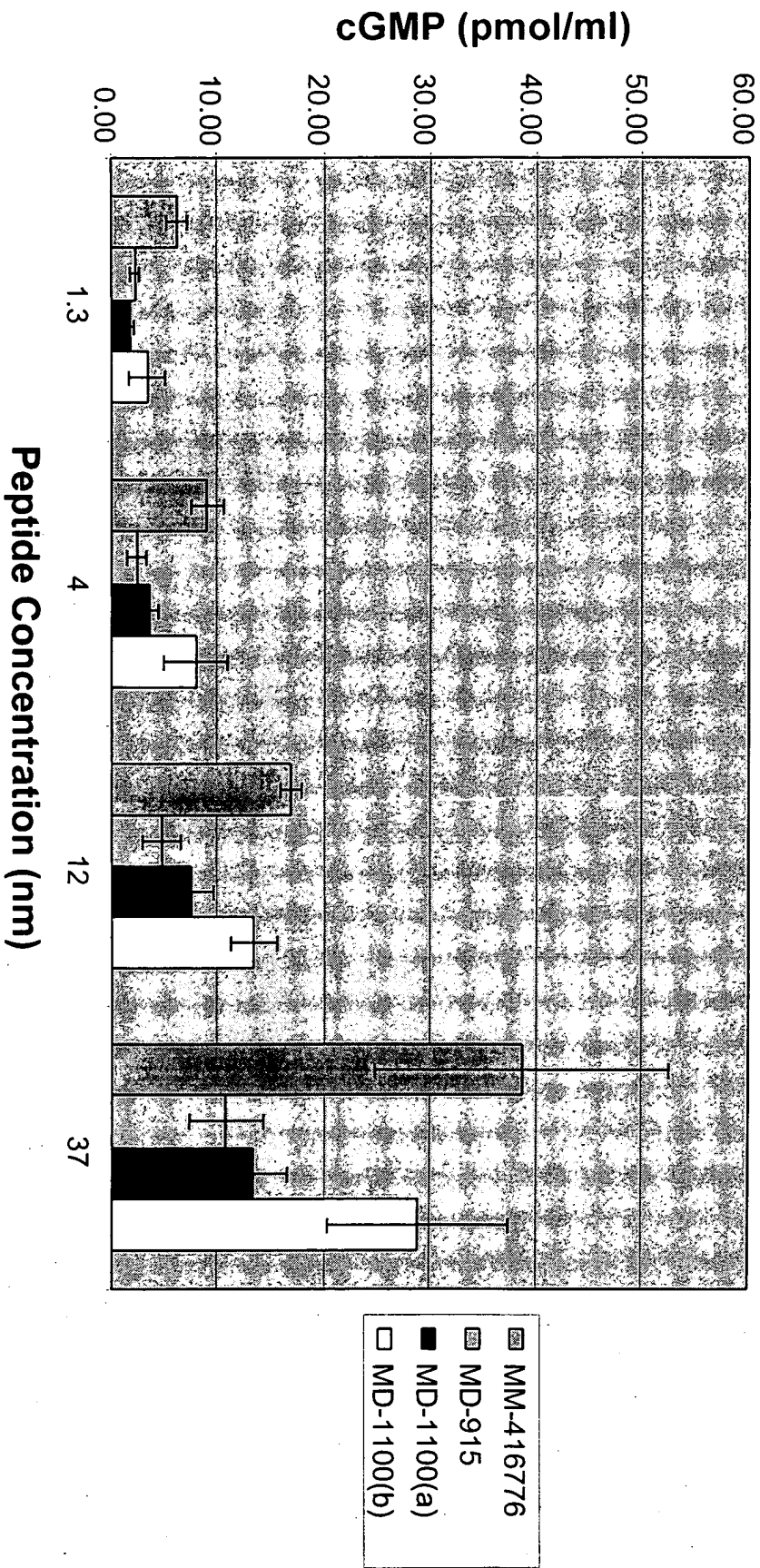
Confidential

**Figure 1c: LCMS analysis (Total Ion Chromatograph of
blank used in MD-1100 analysis)**



Confidential

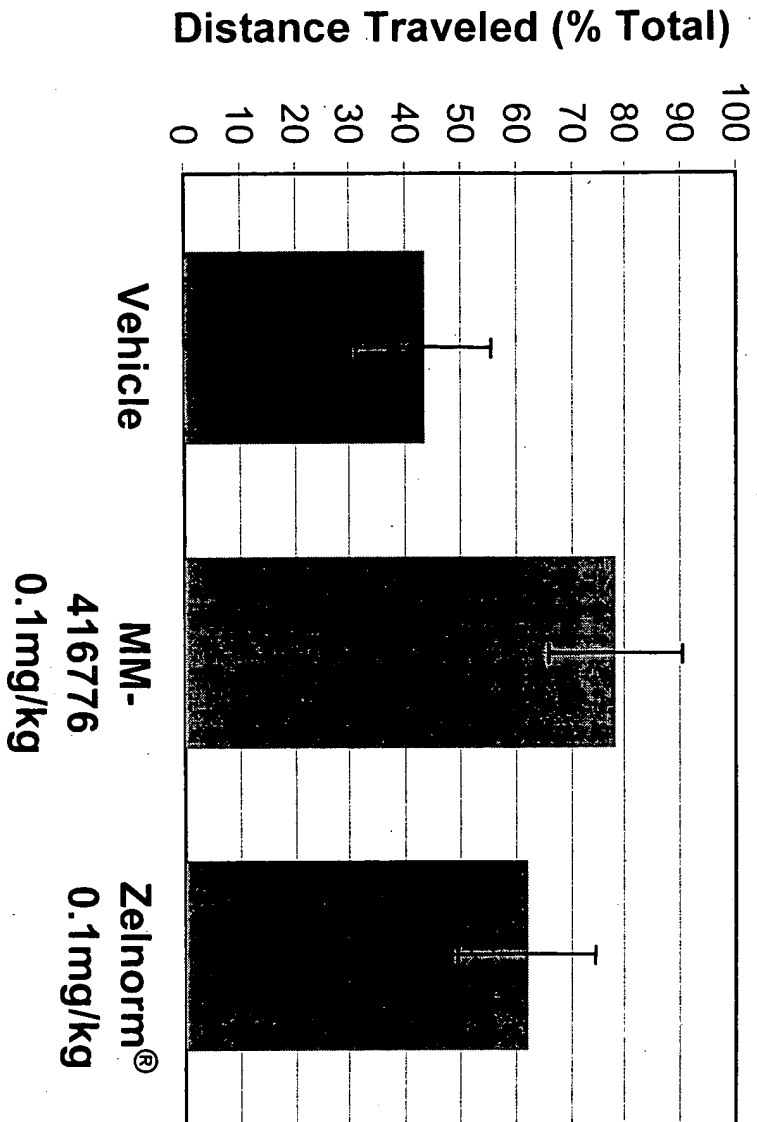
**Figure 2. Chemically synthesized peptides in the
Intestinal GC-C Receptor Activity Assay**



Confidential

BEST AVAILABLE COPY

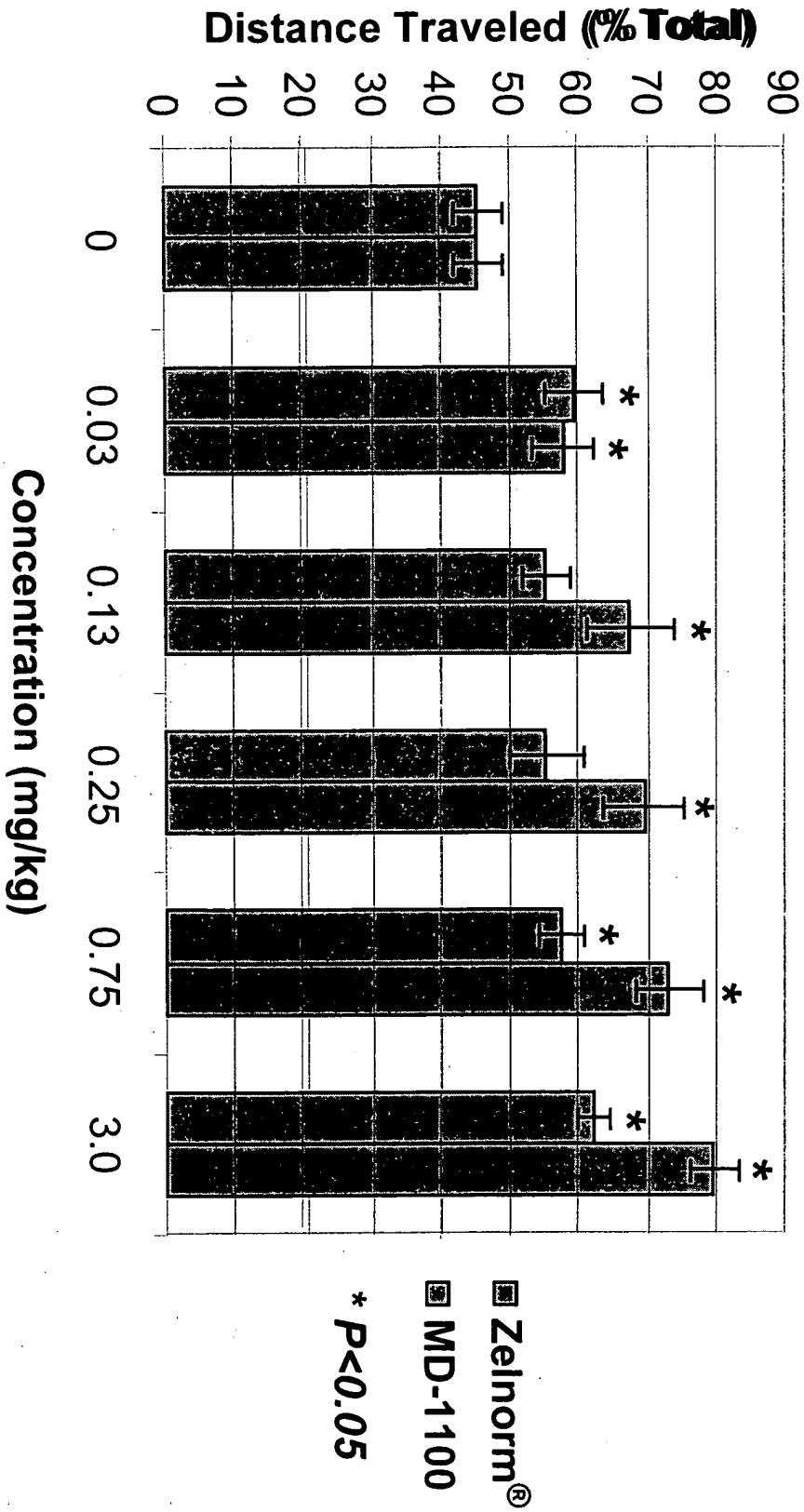
**Figure 3a. MM-416776 vs Zelnorm® in an acute Mouse
Gastrointestinal Transit Model (GIT)**



Confidential

BEST AVAILABLE COPY

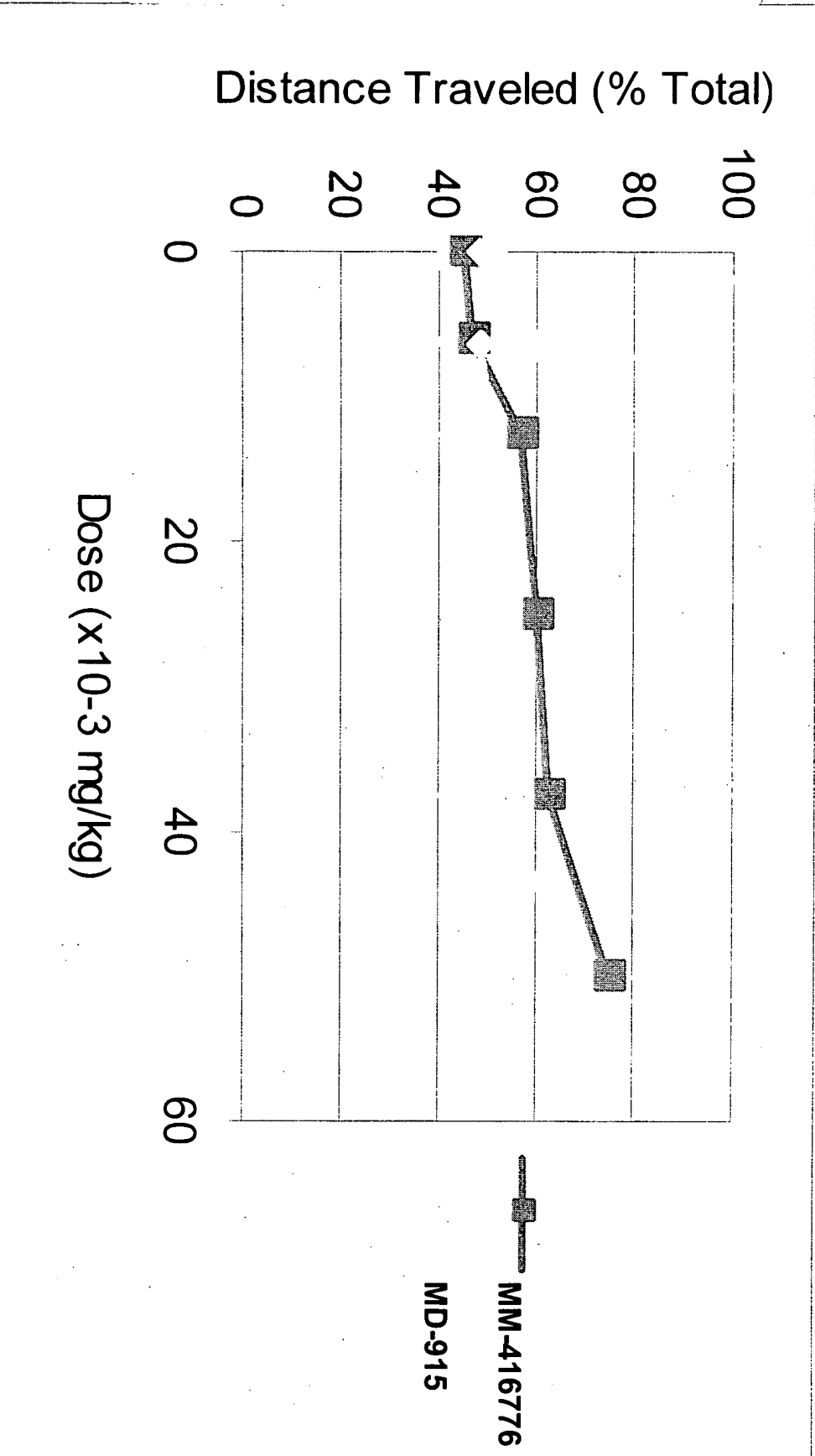
**Figure 3b: MD-1100 vs. Zelnorm® in an acute Mouse
 Gastrointestinal Transit Model**



Confidential

BEST AVAILABLE COPY

Figure 4a. Purified MD-915 and MM-416776 in GIT Model



Confidential

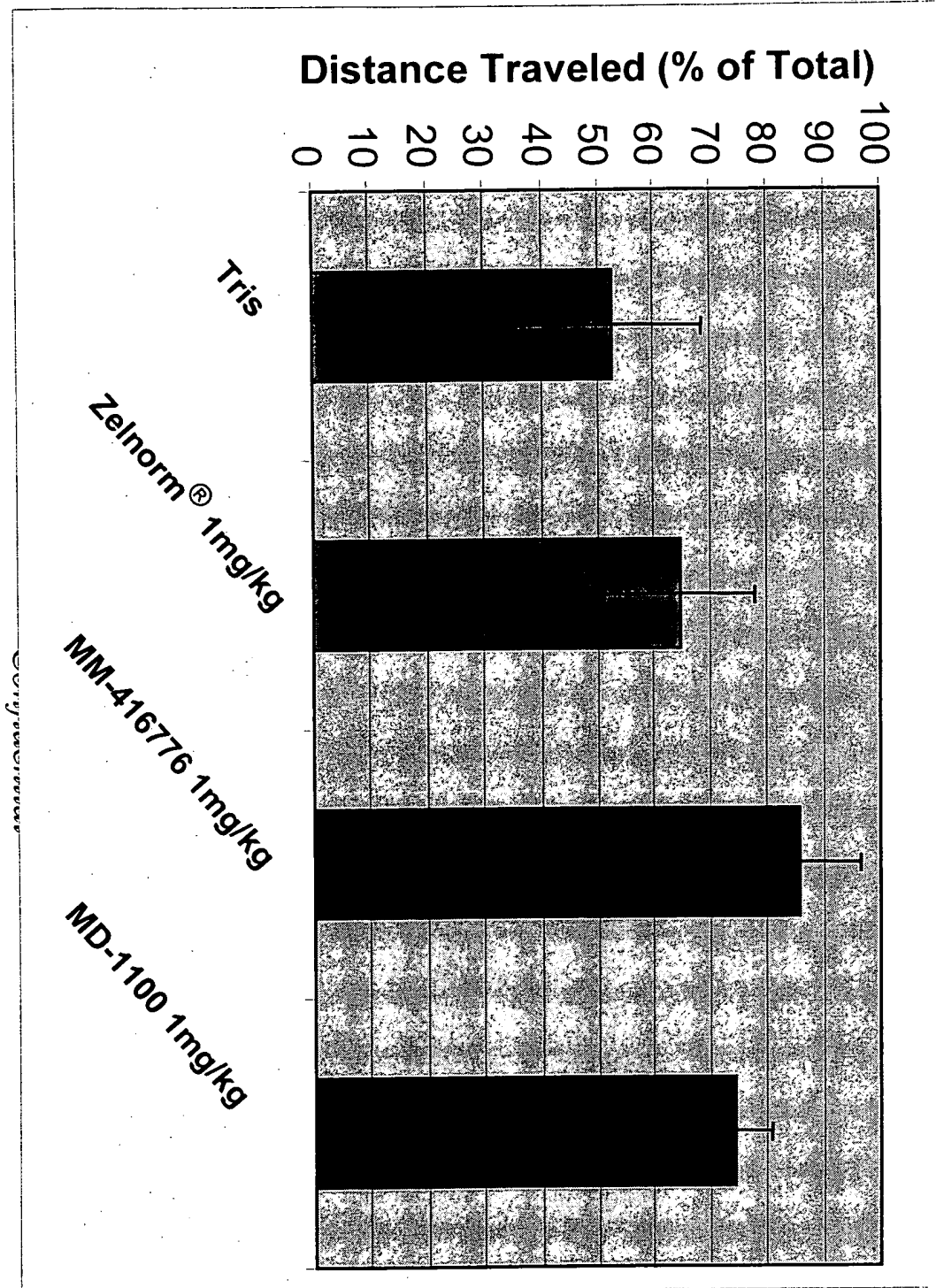
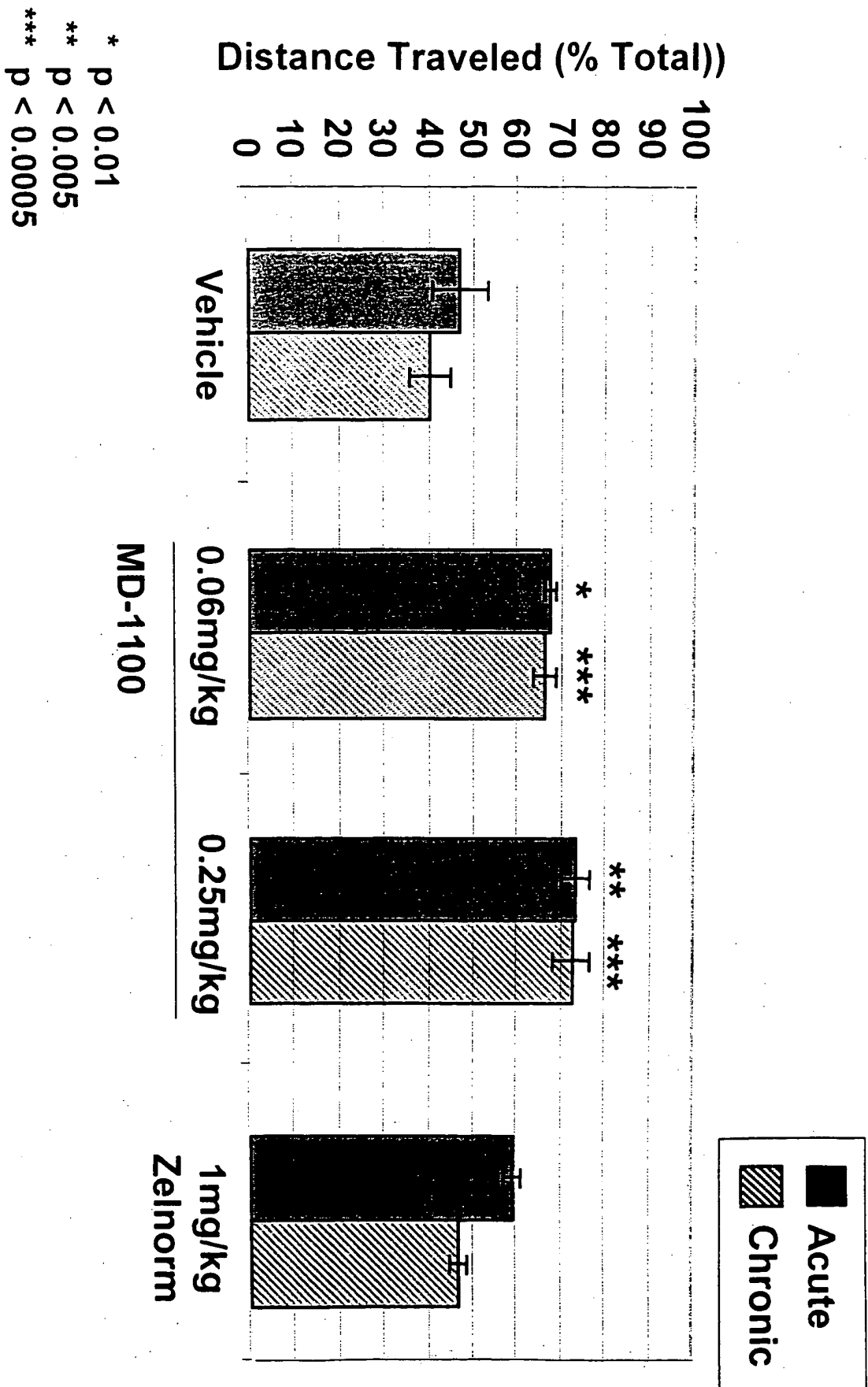
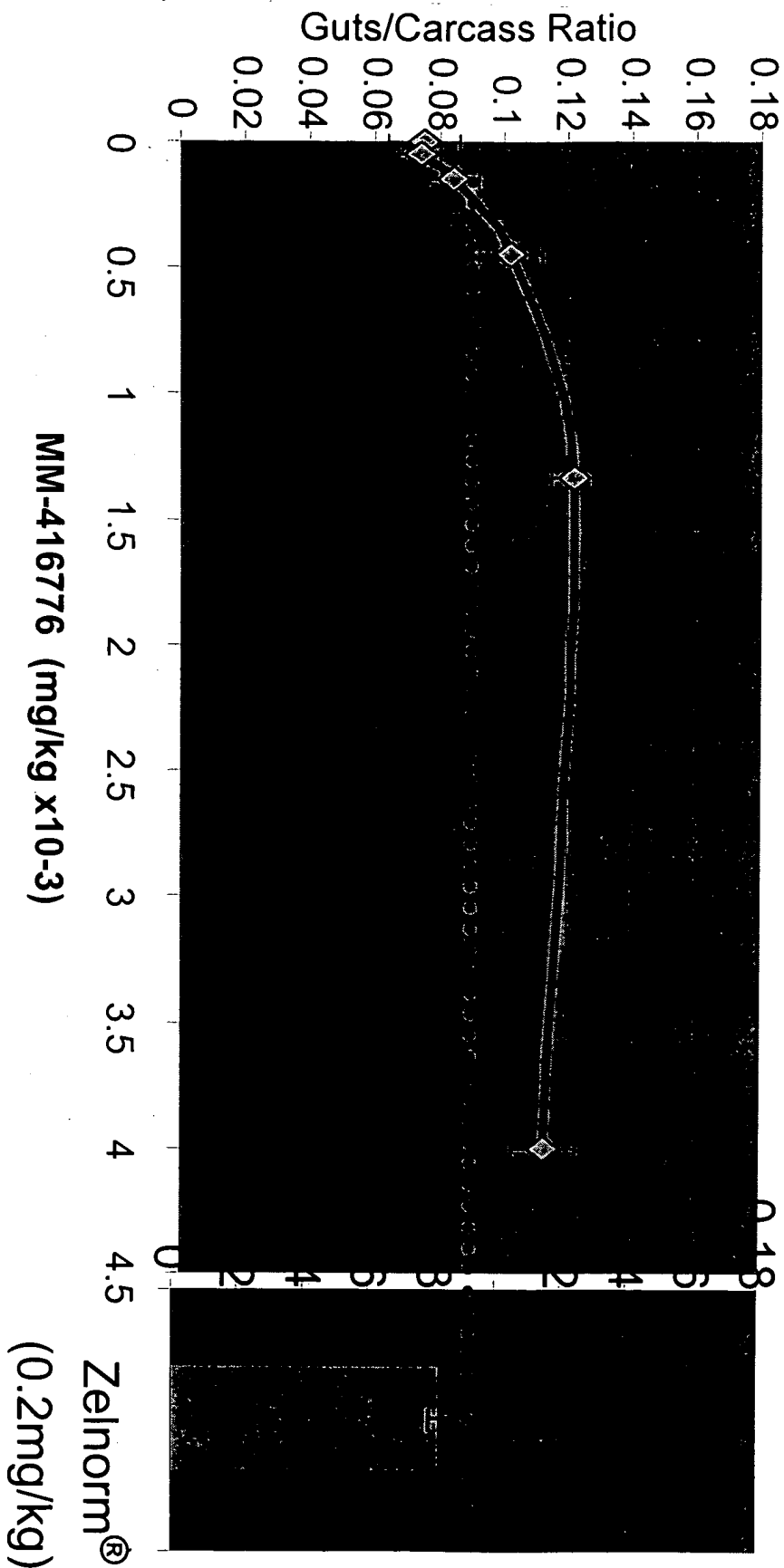
Figure 4b. Chemically Synthesized Peptides in GIT Model

Figure 4c. Chronic vs. Acute Dosing in GIT Assay



BEST AVAILABLE COPY

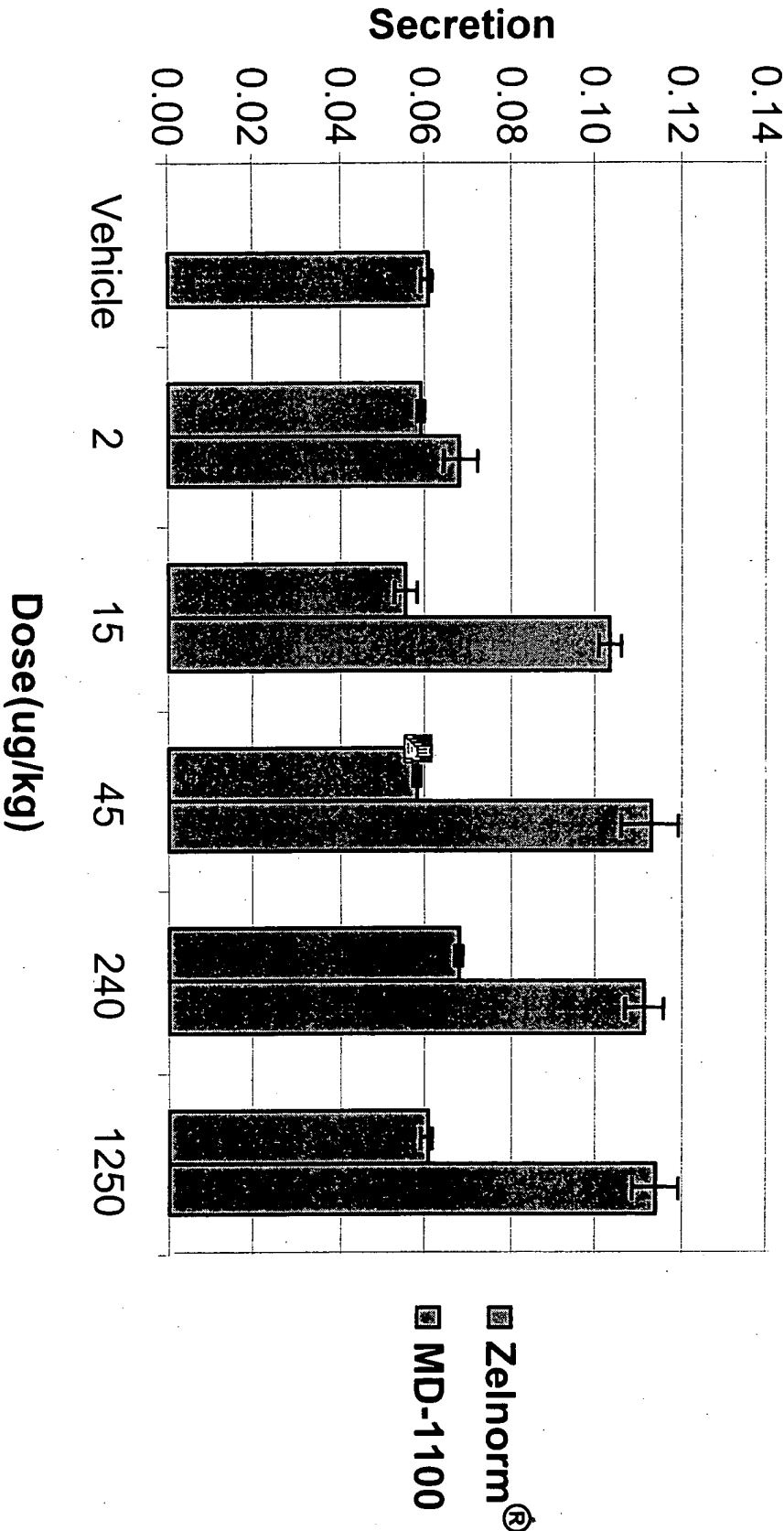
**Figure 5a. MM-416776 vs Zelnorm® in a Mouse Intestinal
 Secretion Model**



Confidential

BEST AVAILABLE COPY

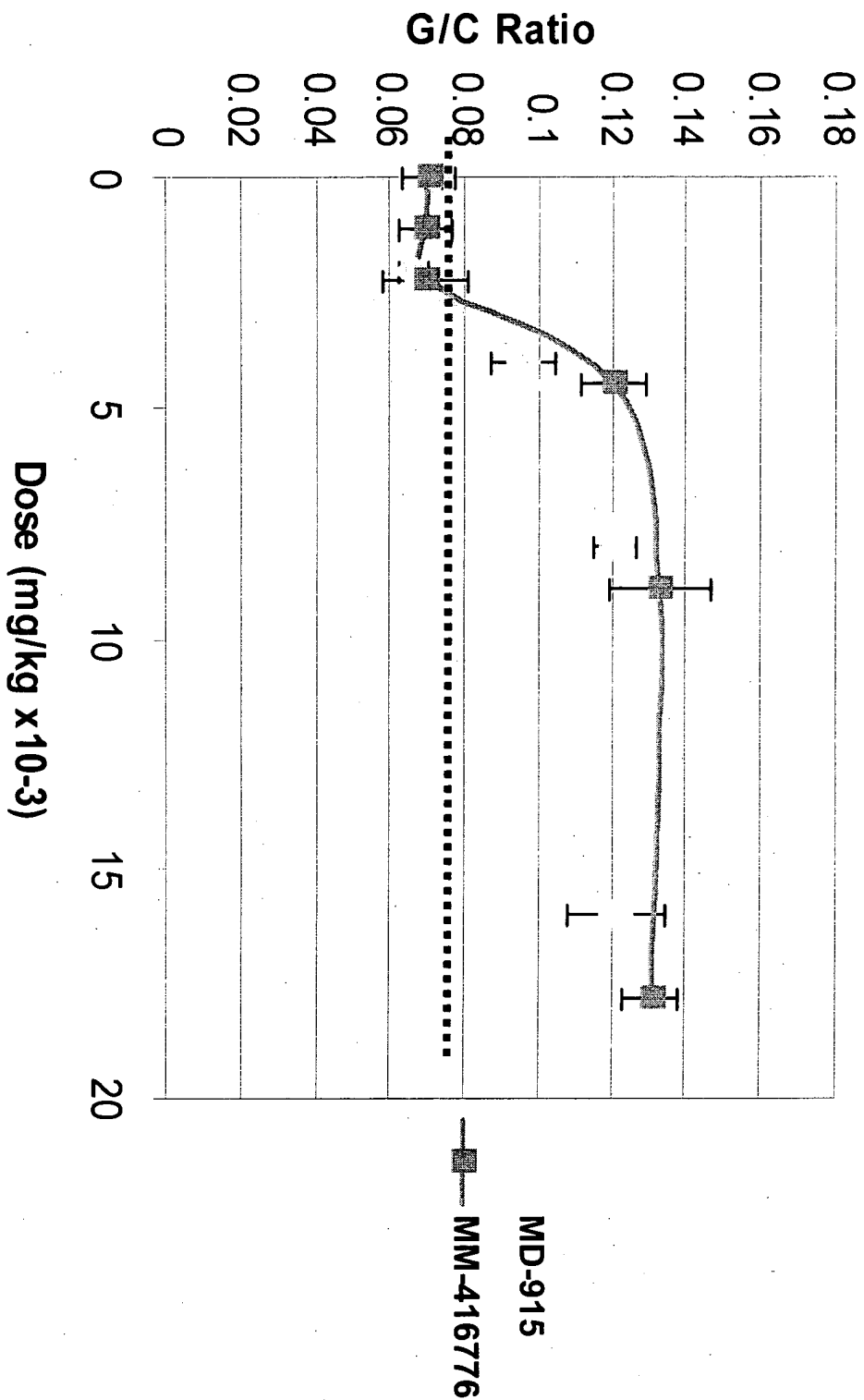
**Figure 5b: MD-1100 vs Zelnorm® in Mouse Intestinal
Secretion Model**



Confidential

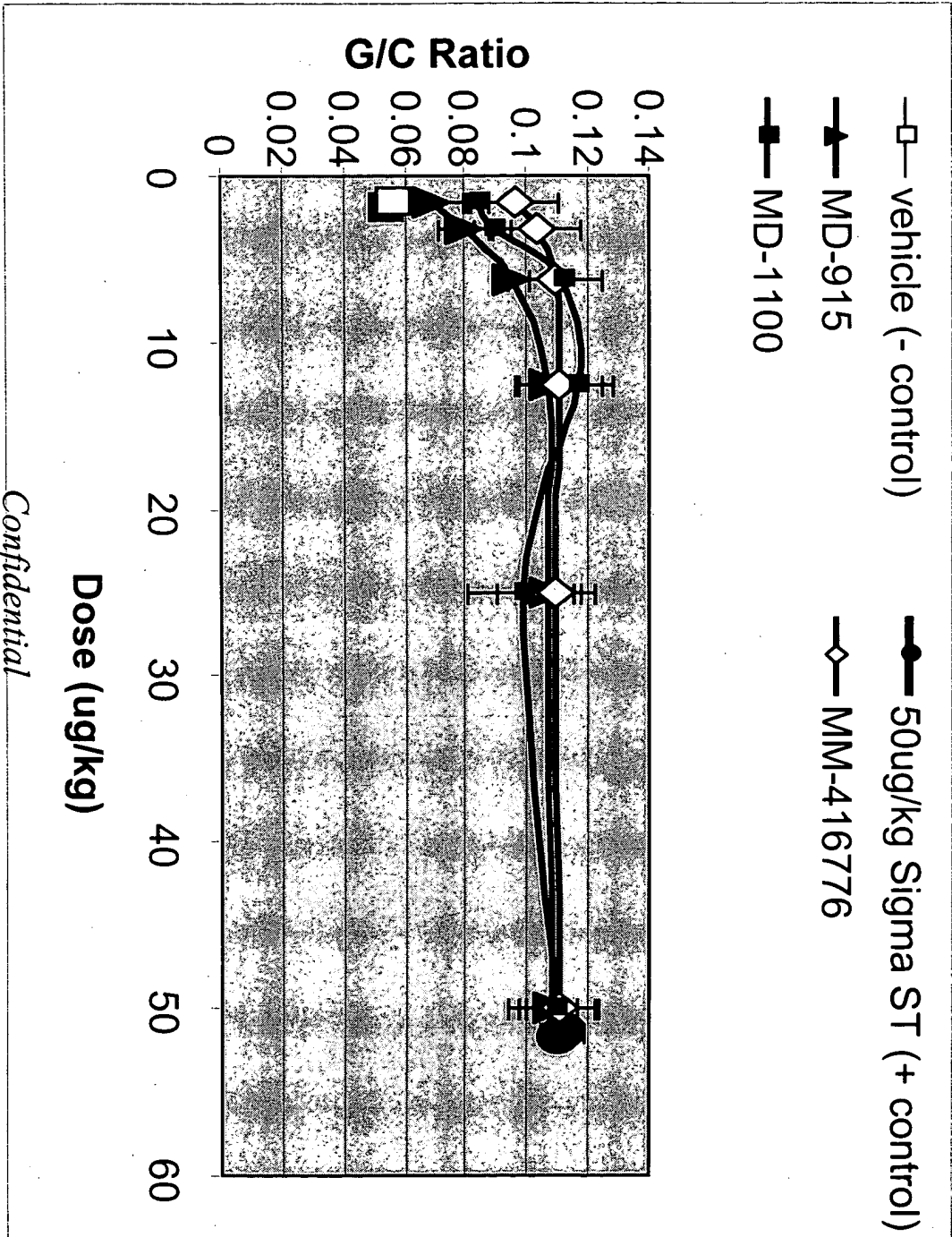
BEST AVAILABLE COPY

Figure 6a. Recombinantly generated MD-915 and MM-416776 in Mouse Intestinal Secretion Model



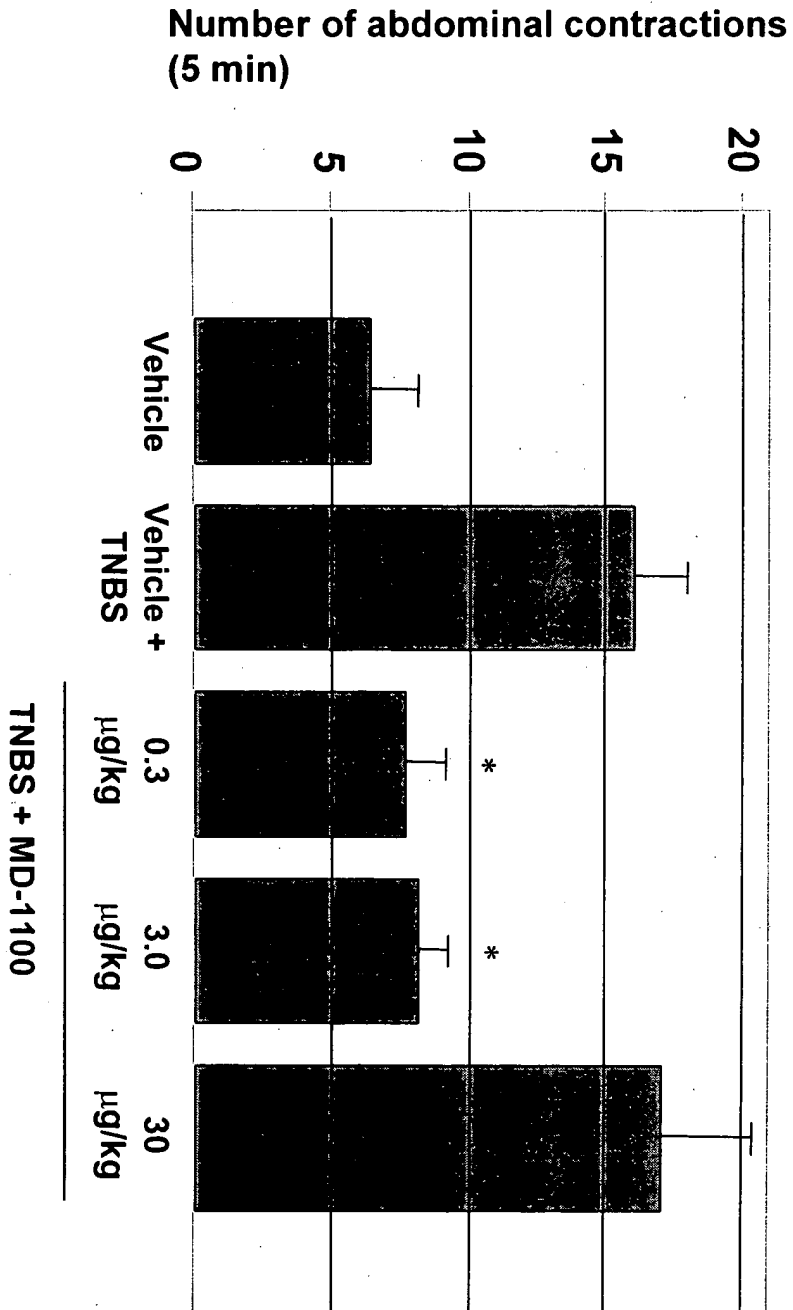
Confidential

**Figure 6b. Chemically synthesized peptides in Mouse
Intestinal Secretion Model**



Confidential

Figure 7: Effect of MD-1100 in a rat TNBS Colorectal Distention Assay

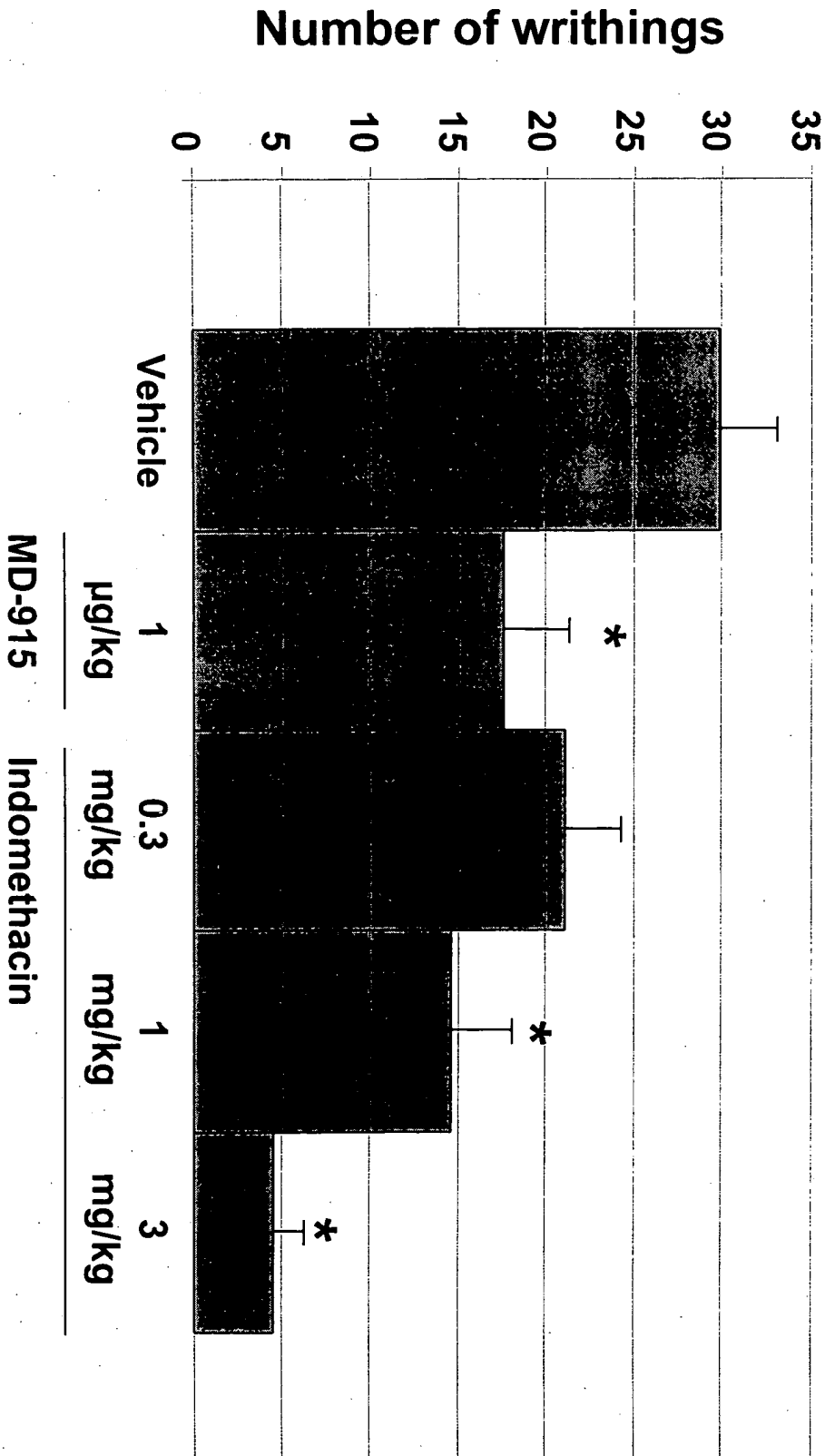


* $p < 0.05$ as compared to "vehicle" value

Confidential

BEST AVAILABLE COPY

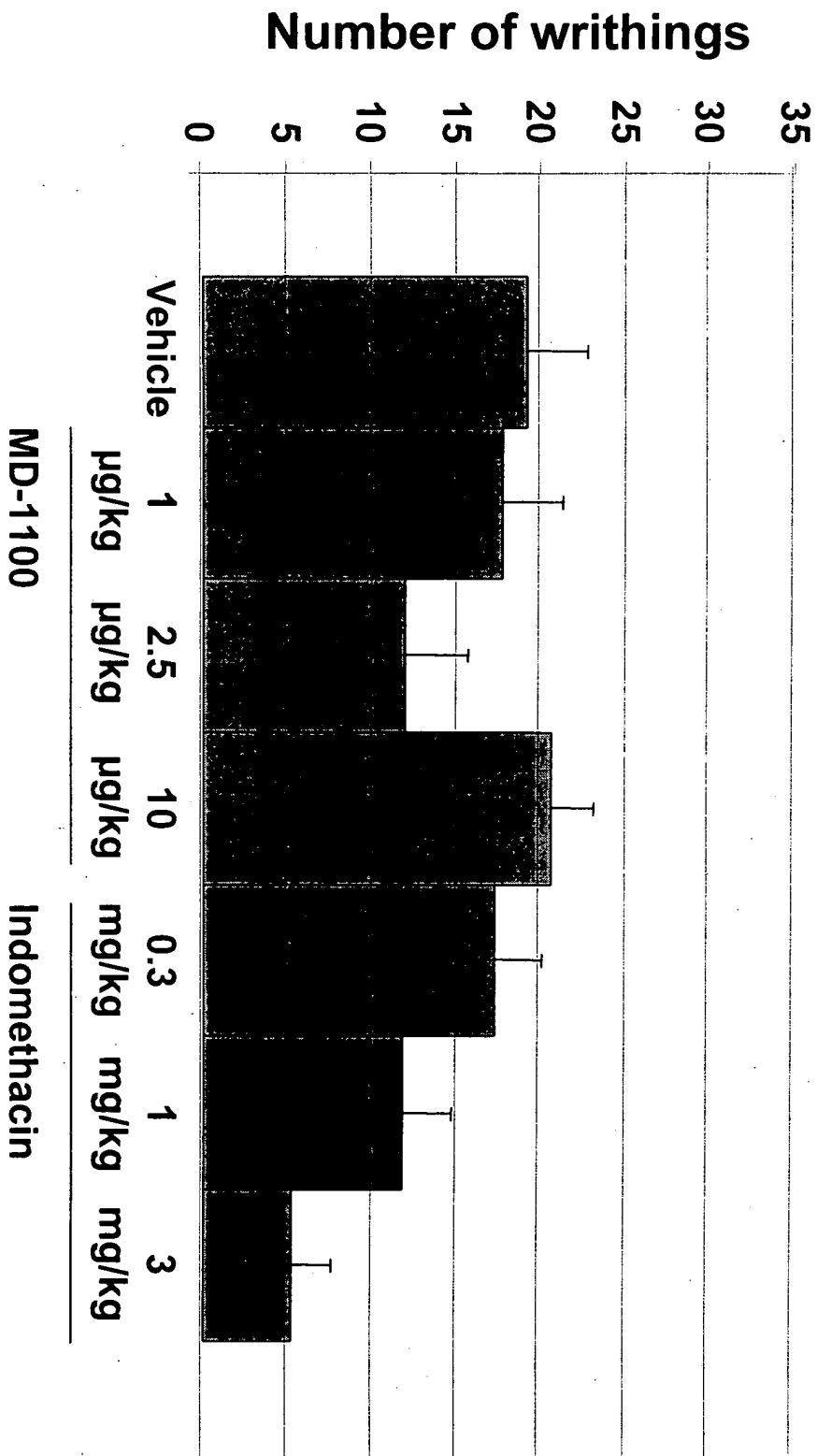
Figure 8a: Visceral Antinociceptive Effects of MD-915 in a Mouse Writhing Assay



Confidential

BEST AVAILABLE COPY

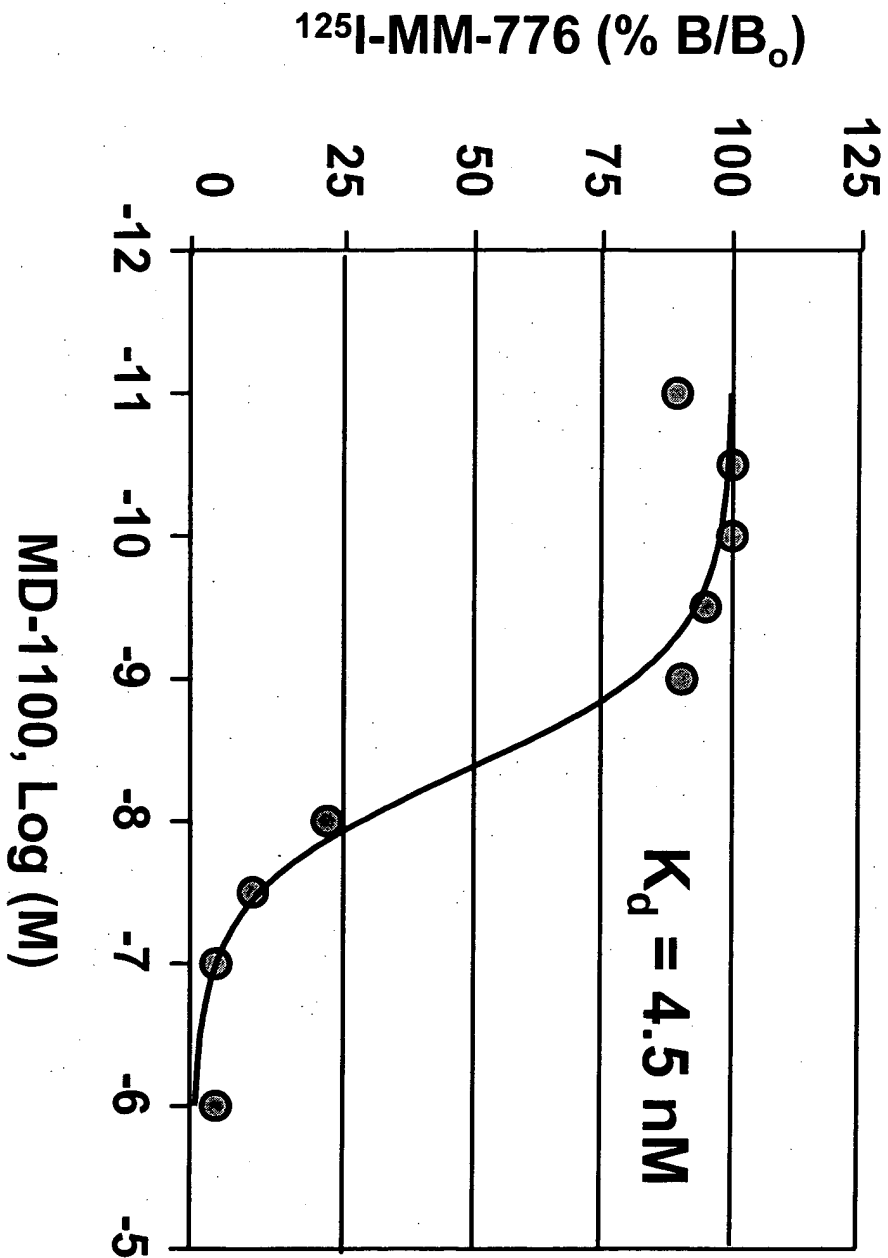
**Figure 8b: Visceral Antinociceptive Effects of MD-1100 in
a Mouse Writhing Assay**



Confidential

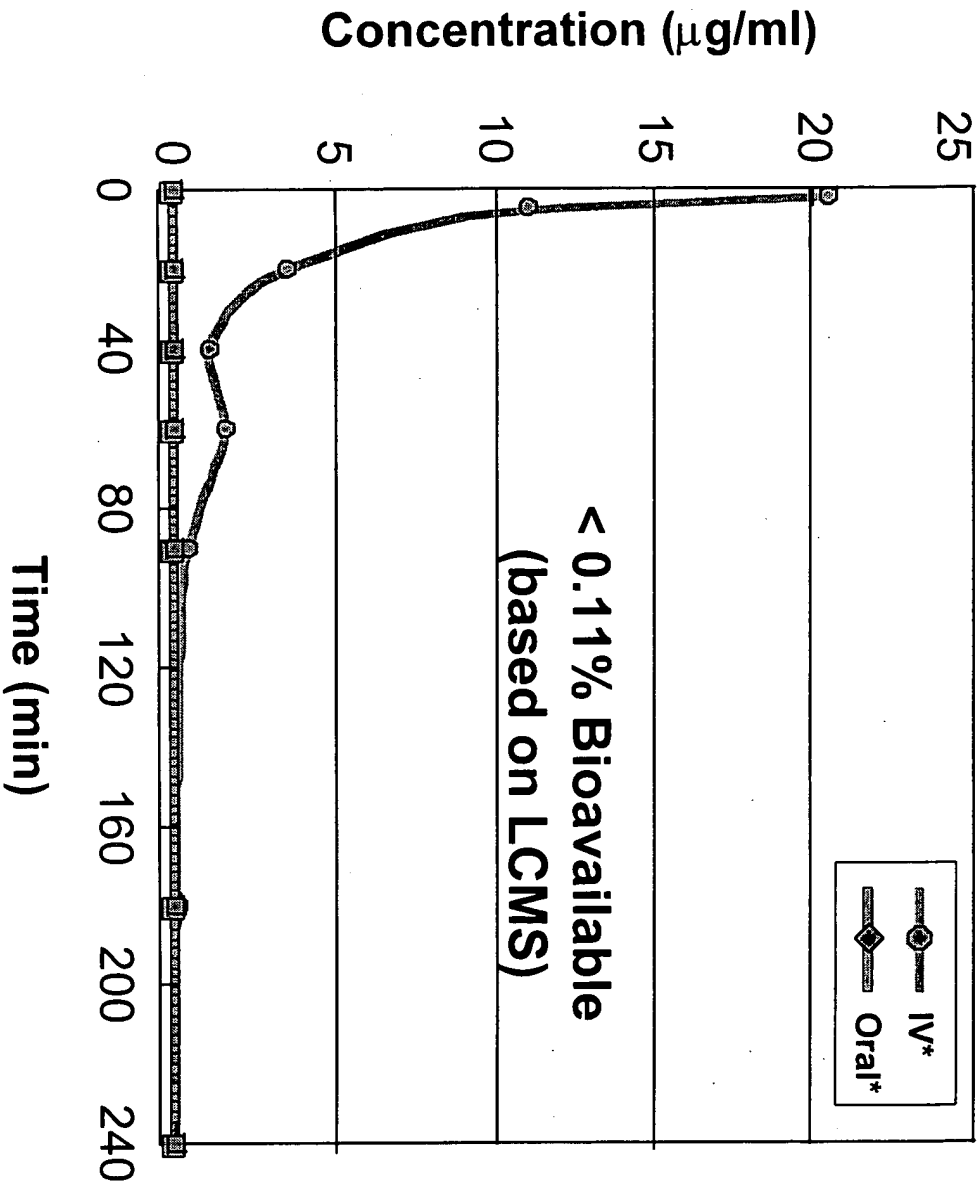
BEST AVAILABLE COPY

Figure 9: Competitive Radioligand Binding of MD-1100



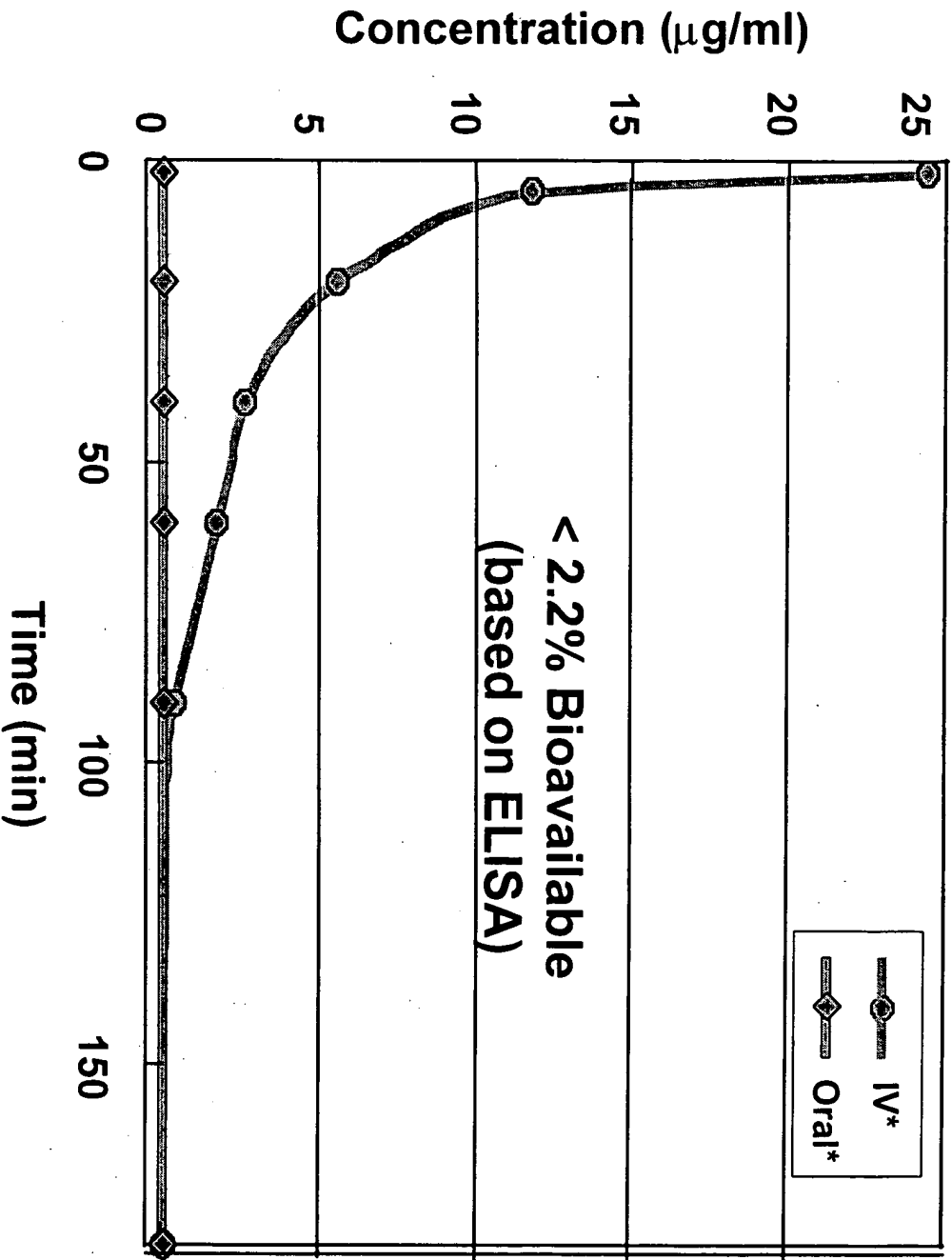
Confidential

**Figure 10a: Minimum Systemic Absorption of MD-1100
(based on LCMS)**



- Limit of detection 0.00063 $\mu\text{g/ml}$ (0.6 nM)
 - Dosing at 10 mg/kg
- Confidential*

**Figure 10b: Minimum Systemic Absorption of MD-1100
(based on ELISA)**



* Limit of detection 0.061 $\mu\text{g/ml}$ (40 nM)
Dosing at 10 mg/kg
Confidential